

FIG. 1

ATGGAGACTTATTCCTTGTCTTTGGGTAATCAATCAOTGGTGGAACTAACATAGCAATA
CAGTCAGCAAAATTTCTCTTCAGAAAAATGCGGTGGGGCCCTCAAATGTTCTGCTTCTCTGTG
CAGAAAGGAGCTAGCAGTTCTCTAGTTTCTAGTTCAAATTATACATACAAATGTGGAT
GGCCTTAACCCAGATGCACAGACTGAGCTTCAGGTCTGCTTAATATGACGAAAAATTC
ACCAAGACATGCGGCTTTGTAGTTTATCAAAATGACAGCTTTTCAATCAAAAACCTTTT
ACAGCTAAATCGGATTTTAGTCAAAAAATTTATCTCAAGCAAACTGATGAAAATGAGCAA
GATCAGAGTGCTTCTGTTGACATGGTCTTTAGTCCAAAGTACAACCAAAAAGAATTTCAA
CTCTATTCTATGCTGTGTCTATTGGAATTTGTGAGCGAAGGACTGGGACACATATGGC
TGTCAAAAAGACAAGGGCACTGATGGATTCTCGCGCTGCGCTGCAACCACTACTACTAAT
TTTGCTGTATTAAAGACTTTCAAAAAGGATTATCAATATCCCAAATCACTTGACATATTA
TCCAACGTTGGATGTGCACTGTCTGTTACTGGTCTGGCTCTCAAGTATATATTTTCAGATT
GTCAACGAGAAAGTCAGAAAAACCTCAGTAACCTGGGTTTGGTCAATCTGTGCATATCA
ATGTTGATTTTCAACCTCCTCTTTTGTGTTTGGAAATGAAAACTCCAATAGAAGCTTGCA
ACAAGTGATGGTGACATCAATAATATTGACTTTGACAATAATGACATACCCAGGACAGAC
ACCATTAAATCCGGAATCCCATGTGCACTGCGATTGCGCGCTTACTGCACTATTTTCTG
TTAGTGACATTTACCTGGAAACGCACTCAGCGCTGCACAGCTCTATTACCTTCAATAAGG
ACCATGAAGCTCTCTCTCGGCATTTCATTCTTTCAJCTCAATTAATGGATGGGGAGTC
CCAGTATAGTAGTGGCTATAACAGTGGGAGTTATTTATCTCAGAATGGAATAATCCA
CAGTGGGAATTAGACTACCGCAAGAGAAAAATCTGCTGGCTGGCAATTCCAGAACCCAAT
GGTGTATAAAAAAGTCGCTGTTTGTGGTCATTCTCGTACCTGTGAACCAATTATCTCTCATC
AGCAATGTTGTTATGTTTATTACAATCTCGATCAAAAGTGCTGTGGAGAAATAACCAAGAC
CTGACAAGCACAAAAAAGTTTCATCCATGAAGAAGATTGTTAGCACATTTATCTGTGTCAC
GTGTTGTTTGGAAATTAACCTGGATTCTAGCATACCTGATGCTAGTTAATGATGATAGTCAT
AGGATCGTCTTCAGCTACATATTCTGCCTTTTCAACACTACACAGGGATTGCAAAATTTT
ATCTCTGTACACTGTTAGAACAAAAAGTCTTCAGAGTGAAGCTTCCAAAGTGTGTAGTGTG
CTATCGCTATTGGGAGAGGAAGTCATTGCTTCAGTACGCGCGCGAGGCTGCGGTGA
AAGATGTATAAATTTCTCAGGTCAATGCGCAACCTTACATGAACGCTTTAGGCTACTGGAA
ACCTCTCCGAGTACTGAGGAAATCACACTCTCTGAAAGTGACAAATGCAAAAGGAAAGCATC
TAG

FIG.2

METYSLSLGNQSVVEPNIAIQSANFSSSENAVGPSNVRFSVQKASSSLVSSSTFIHTNV
GLNPDAQTELQVLLNMTKNYTKCGFVYQNDKLFQSKTFTAKSDFSQKIISSKTDENBQ
DQASVDMVFPSPKYNQKEFQLYSACVYNLSAKDWDYGCQDKGTDGFLRCRCRCHNTN
FAVLMTFKKDQYQPKSLDILSNVGCALSVTLGALTIVIQIVTRKVRKTSVTWVLVNLCS
MLI PNLLFVFGIENSNNKLTQSDGINNIDFDNNDIPRTDINIPNMCATAIALLHYFL
LVPTFTWNLASAAQLYLLIRTMKPLPRHFILFISLIGWGVPAIVVAITVGVISQNGNPN
QWELDYRQKICWLAIPENGVIKSPLLWSFIVPTIILISNVMPITISIKVLWNQNNQ
LSTYKVKVSMKKIVSTLSVAVVFGITWILAYLMLVNDDSIKRVFSYIFCLFNTTQGLQIF
LITVTRKVFQSEASKVLMLSSIGRRKSLPSVTRPRLVKMYNFLRSLPTLHERPRLLE
TSPSTEBITLSESDNAKESI

FIG. 3

CCACGCTTTCCTCCCTGACCACAGGTGATCCGCTGCCTCAGCCTCCGGAAGTGCAGGG
ATTACAGGCGTAGTAACTAAGCCACACACCTGGCCGCCACTCTTATTTTAAAAAGTTGA
CATCAGTTTGTGAAAAAGGACTGTGTTTCATCAAATTCAGCAAATGATGATCAATAGC
ACATTTAAAAATGGCTTCATCTTTGTGGAAGTTTTCATGGAATATAGATCCCTGCACATTG
AGACCAAGAGGAAAGCCTCTTGATGGTGTAACTGGACCAAGATGAAGAGAAAGAACTATT
ATCAAAGACCCCTTGGAAACAGGAAACTCCAAACCTGATGCGGGTCTCAGGGCAGTATTCTA
TGAGCAGGTGAAATAGAAAGTACATCTAACTAGATGTTTTCATGCAGATTAAATATT
TTGACCAAAGTTGTACCCAAATGCACATGCATGGAAGAGCTAACACTAGGGGACAAGCAA
GGGGAGGGAAGGAAACCAACCTTTATGTACAGCCTTTCATGTGCCCTGGCATGTTGCAT
ATGTTATCACATTTAATCCTTATAAACTTCTGTGAGTTGAATGTTATTTCCCATATTATA
AATAATTATAGCCAATAACACTTACTAATTGTTGAGCACCTACTGCATGCCAAATATTGT
GCCAAATATTAAATGATTATTATTAGTTTATCATATTAAATTTTATTAACACCATAAATAGG
TATTAATGTACACATTTTATAGATGAGGAAAAATGTGGTTCTGAGAGGTTGAAGCATTTTGC
CTAGTGATCACAGCTAAAAAGTGATAGAGCTGTCTTTATTTTAAAGTTTCACATTGTACT
ACCTGGCTCCCTAATCACAGATGGGACAGGTTAGGGGTTGGGTGGGGACAGAAGTTGGAG
AGTGGATGTGGCTGCCAACCAACACAAGTTGTGCCAACCCACAGATTGAGGAAAGATGCTA
AATTTGGAATCTGGCAAACAGTGTTTGGTCTCTAGCTCTGCCACTTCTAAGCTGTGTGA
AACTTGGTTGAGGTCCCTAACTTCTCTGAGGGTGAACAACTCAAAAGTTGTTTTCGCT
ATTAATGTGATAACACCTGTAAACATCTAACAGAGTGCCCTAGCACATAGCAGGGATCTA
GCAATTGAATTAGGTTATTGTTTCTGTCTACTGATTGGGTATTGTTTCTGCACATCTAC
CCAAGTGTGAATAGCCTATAAACCTGGTATAATTGTTGAAATGATGCTGCCATCTAGTGA
AAACCAAGACACACACACACACACACATACACACACACCTGCGCGCGC
ATGGAACCCAGCTTCCCAATGACAAATATGGATTGGCAITGTTTAGCCTCAACAACAG
AGCCCTGGGGCTAACTGGCACCTAGAGAGGTCTATCTCGCCAGTGCCTTCCAAACTACCA
GTGCTGAAAAGCCAGTTCAAAAAATTTGAACCCATTGCACACCAATATTTTGTGAAAT
ACCAATAAAATAAATTACTGGAAAAATGAAAAATAAAATATGTATAAAAATACAAACAAA
ATTTTAGAACTGTAGATTCAACAGCAAAAAATTGTGTATACATCTCTGCCAATTGCT
TTCAGTTTCTGTGCTTATCTCTCTACGACCTTTGTAACACACAGTGAACCGCGCTGGCC
CATGGATACACTCTAGTAGCCCCAATCTAGCTAAGGCAGCCCCCTATAGTTTAATCAATCC
TGTCAAACAGGAAAGGCTGGCAAAACCACTGGTCTGCATGTACTTTGTCTTTACACAAG
GAAGGATGCAACAGCTGGAAAACTGAGTGDACATGGTGTTCAGGAGATTGAGGCTCAGCTA
ATGTCACGCTTATTACCTGCAGTTGCTTACAAAGTGTTTGGACATAATTGTGTAAGCT
AGGTTTATTTTCTGTTTAAAAACAGGTAAAGGATGTCACAGCACCACTTAATAAAT
TCTTCTGAAGTCCAGATTTTAACTCTGATGCCAATAAATTAAGTGTGAGAACATCAC
TAGTGCTACGGGAGTGGTTGGACAGATATTCAACACTTCCAGAAATGCTTCACTGGAGC
AAGAAAGTTGCCATAGTAAACAGTGAGTCAACTCTAGATGCCAGTGAAGATGCTTTTCA
AAGAGTGTGCTACTGCTAAATGATGATGCCCTTACACGCTTATTGAGCAA

0995122.02601

FIG. 4

ACAGTAAACTTACCTGTTGTGGTCTTTTAAACACCTCGTTTGAGTTTTATCTGTTTCT
 CTCCTTTATTTCCCAGTCCTCTCAGAAAGTCTTCCTCAATGTATTTTGCTCAGGATTAAG
 AATTAGATAAAACCTGTGTTTATTATTATTCGGCATAATGGACTTGGTAGTTTTTCTAT
 TTTTCAATAGATTTGTACTTGAATAAGGTGAAGAAATTCACACAACATACAAGAGTACCA
 TGTTCCTTTATATCGTTAAATCTTTGTGACACACTTTGACAAAAATGTAGAACCTATAAC
 AAATTCTTTTACAAGTTACTATAAAGGACACAAAGAGAAAACTTTACCTTCCAGAACAAA
 ATGACTCCTGATGAACAGTGTGTGGGATTGCTTGATGTATTAACTTTTGACCTCTG
 AAAAAAAAAAAAAAAAAAAAAAAAAAAG

FIG. 5

1 METYSLSLGN QSVVEPNIAI QSANFSSENA VGPSNVRFVS QKGASSSLVS
 51 SSTFIHTNVD GLNPDAQTEL QVLLNMTKNY TKTCGEVVYQ NDKLFSQKTF
 101 TAKSDFSQKI ISSKTDENEQ DQSASVDMVF SPKYNOKEFQ LYSYACYVWN
 151 LSAKDWDITYG CQKDKGTDGF LRCRCNHNTN FAVLMTFKKD YQYPKSLDIL
 201 SNVGCALSVT GLALTIVFQI VTRKKVRKTSV TWVLVNLCS MLIFNLLFVF
 251 GIENSNNLQ TSDGDINNLD FDNNDIPRTD TINIPNPMCT ATAALLHYFL
 301 LVTFTWNALS AAQLYYLLIR TMKPLPRHFI LFISLIGWGV PAIVVVAITVG
 351 VIYSQNGNNP QWELDYRQEK ICWLAIPERN GVIKSPLLWS FIVPVVITILI
 401 SNVVMFITIS IKVLWKNQNN LTSTKKVSSM KKIVSTLSVA VVFGITWILA
 451 YIMLVNDDSI RIVFSYIFCL FNTTQGLQIF ILTVVTRTKVF QSEASKVLML
 501 LSSIGRRKSL PSVTRPRLRV KMYNPLRSLP TLHERFRILLE TSPSTEBITL
 551 SESDNAKESI

FIG. 6A

088925 -----
 088927 MCPPQLFILMMLLAPVVHGGKHNERHPALAAPLRHAHSPGGPLPPRHLLQQPAERSTA
 Q9Y3K0 -----
 HGPRBMY6 -----
 Q10922 -----MATASTEISEFSEAISTFDLDTAHQTEITIGTYWNLRALLRL

088925 -----MCPPLFILMMLLAPVVHAFSRAPIMAVVRRSCSSYIELRC
 088927 HRGQGRGTARGVRGPGAPGAQ.....AAQAFSRAPIMAVVRRSCSSYIELRC
 Q9Y3K0 -----
 HGPRBMY6 -----
 Q10922 HRSLVAIDHVSQKSFWEYRNHWQLSMLVSNQNVNLCQSNICQNGGTCIVASSVATATC

088925 PGTDVIMIESANYGRDDDKICDSDPAQMBEIRCYLPDAYKIMSRQCNNRTQCAVVAGPDV
 088927 PGTDVIMIESANYGRDDDKICDSDPAQMBEIRCYLPDAYKIMSRQCNNRTQCAVVAGPDV
 Q9Y3K0 -----
 HGPRBMY6 -----
 Q10922 EKNSIYYMCSYCYFDTLRNWNDAALYCNMNSATLPLVESAEQDAFFAGYLAQAMIPSNP

088925 FPPCPGTYKYLEVQYECVPYKVEQKVLCPGLKGYQSEHLFESDHQSGAKCKDPLOA
 088927 FPPCPGTYKYLEVQYECVPYKVEQKVLCPGLKGYQSEHLFESDHQSGAKCKDPLOA
 Q9Y3K0 -----
 HGPRBMY6 -----
 Q10922 PAMMRPPDGIWTAVRGVNVNTRASWVYPGSF...VDTFWAPQEPNIYVNVNDVCVAL

088925 SDKIYMPWTPYRTDLTEVSSKDDFIAGRPTTTYKLPHRVDTGFVVYDGLFNFNKERT
 088927 SDKIYMPWTPYRTDLTEVSSKDDFIAGRPTTTYKLPHRVDTGFVVYDGLFNFNKERT
 Q9Y3K0 -----
 HGPRBMY6 -----
 Q10922 QSDSYREMITALCITLKVTVCVKVAPTQIAKYVAQCSCPNGVGGTCETQSTTNQQAQ

088925 RNIVKFDLRTRIKSGEAIIANANYHDTSPYRWGGKSDIDLAVDENGWVVIYATEQNNGKI
 088927 RNIVKFDLRTRIKSGEAIIANANYHDTSPYRWGGKSDIDLAVDENGWVVIYATEQNNGKI
 Q9Y3K0 -----
 HGPRBMY6 -----
 Q10922 TQRTCGSNDQFQSCPNQITITVDFASFQAQGGSIITSPPDQLLQIIVQKYNRETKKTVPF

088925 VLSQINPYTLRIEGTWDNAVDKRSANAFMICGLYVVKSVYEDDDNEAGNKIDYIYNT
 088927 VLSQINPYTLRIEGTWDNAVDKRSANAFMICGLYVVKSVYEDDDNEAGNKIDYIYNT
 Q9Y3K0 -----
 HGPRBMY6 -----
 Q10922 WLGTPNCCQLMVTGSSDYSQCSPSSSTANVHCSTVPOSTASVSARPPQSA....PV

088925 DQSKDSLVDVPFPNSYCYLAADVYNPRDNLLYVWNHVVVYSLDFGLDSRSGPVHHGQ
 088927 DQSKDSLVDVPFPNSYCYLAADVYNPRDNLLYVWNHVVVYSLDFGLDSRSGPVHHGQ
 Q9Y3K0 -----
 HGPRBMY6 -----
 Q10922 DPSQIMARREVYTGVPILASALGGQSKTNKLNINICQTKIG...APLSLFLFSRNEVI

088925 VSYISPPIHLSDLERPPVVGISTTGPLMGSTTTSTTLRTTTWNLSRSTPSLPGRNR
 088927 VSYISPPIHLSDLERPPVVGISTTGPLMGSTTTSTTLRTTTWNLSRSTPSLPGRNR
 Q9Y3K0 -----
 HGPRBMY6 -----
 Q10922 TGFVCISLISAPQIIYYLCAVSLICHPSVPSINKPRYCKEKKDG...IYEQTRACMLH

0096542.00501

FIG. 6D

```
O88925  -----
O88927  -----
Q9Y3K0  -----
HGPRBMY6 -----
Q10922  FPYGGVYCTSAVNRLSCDGDGSGGVVRTSDTRNVQVLVGVLGAGMPCPELYDTHNRQRQ

O88925  -----
O88927  -----
Q9Y3K0  -----
HGPRBMY6 -----
Q10922  QRRQLTQETDLLVDVSAHVDFCTCCGMCS
```

2025.02.19.00

FIG. 7

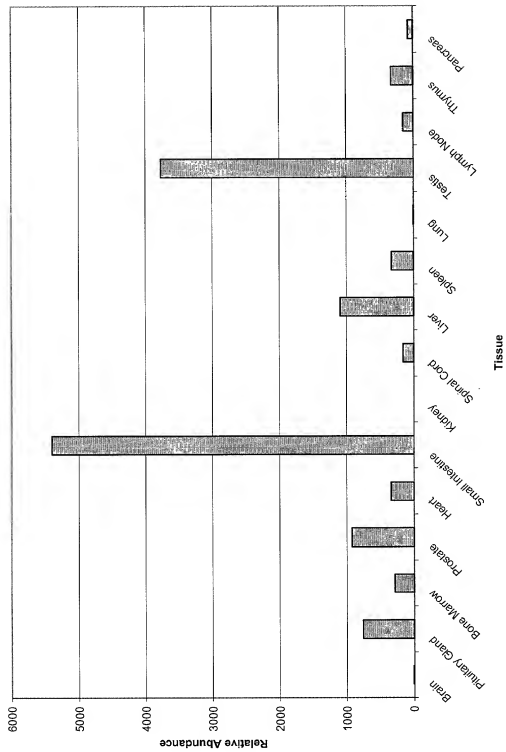


FIG. 8

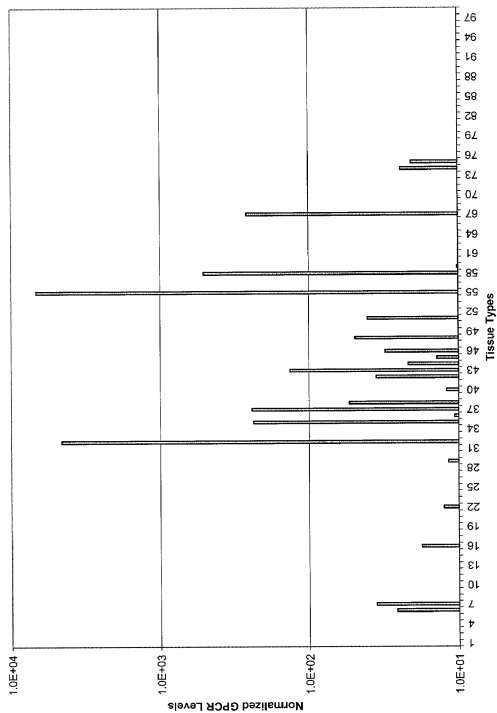


FIG. 9

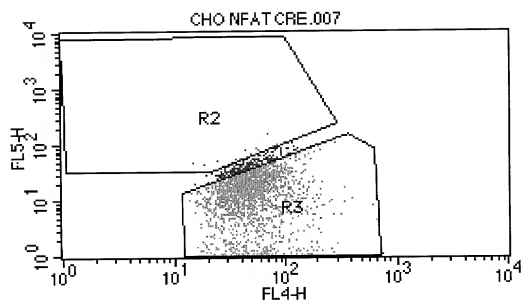


FIG. 10

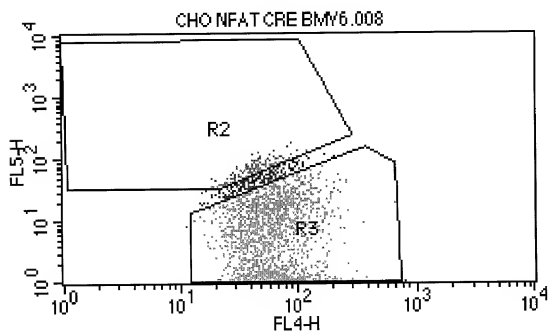


FIG. 11

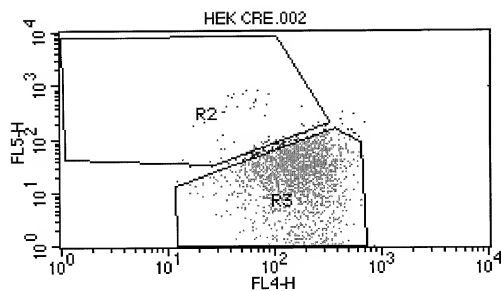


FIG. 12

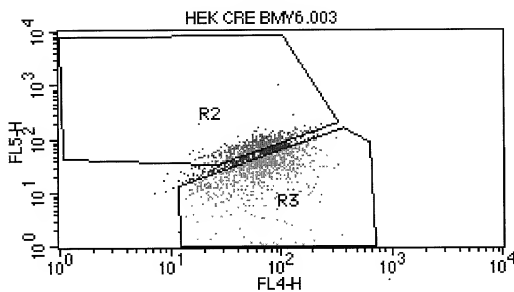


FIG. 13

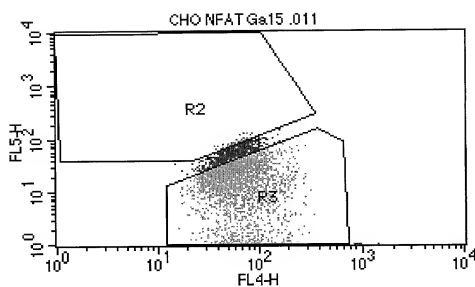


FIG. 14

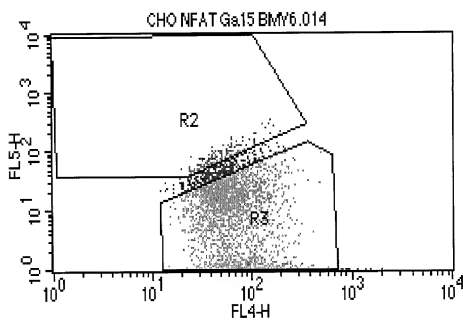
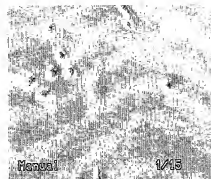


FIG. 15

a. CHO-NFAT G alpha 15 (Fluorescent vs. Bright Field)



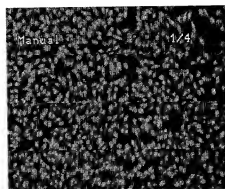
b. CHO-NFAT/ G alpha 15 HGPRBMY6 (Fluorescent vs. Bright Field)



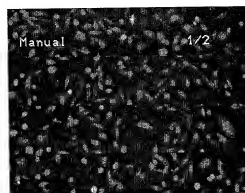
0996422-00001

FIG. 16

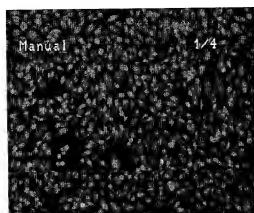
a. CHO-NFAT/CRE



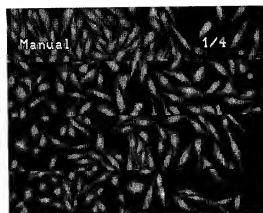
b. CHO-NFAT/CRE + P/T/F



c. CHO-NFAT/CRE oGPCR-Intermediate



d. CHO-NFAT/CRE oGPCR High



0096422-00001